Day 87

Q. There are N stones in a pond, each having a value Ai? written on it. A frog is at stone 1 and wants to reach stone N. The frog can jump from a stone i to any stone j(j>i). Let d be the length of the subarray (i.e. j−i+1), then the energy required for the jump is (d·Ai?)−Aj?. Find the minimum non-negative amount of energy required by the frog to reach the N-th stone.
Note: It is possible that the total amount of energy required is negative, in that case, you should print the minimum non-negative value (i.e. 0).

Input Format
The first line contains an integer T - the number of test cases. Then the test cases follow.
The first line of each test case contains an integer N - the number of stones.
The second line contains N integers denoting the numbers written on the stones.

Output Format
For each test case output a single integer - the minimum non-negative energy required by the frog.

Sample Input
4
3
6 1 3
4
3 1 10 4
3
7 9 1
2
1 5

Sample Output
10
4
20
0

main.py

```python
from math import *

for u in range(int(input())):
    n = int(input())
    l = list(map(int,input().split()))
    x = 0
    y = 0
    s = 0
```

```python
    while(y<n):
        if(l[y] >= l[x]):
            y=  y+1
        else:
            s += (y-x+1) * l[x] - l[y]
            x = y

    s += (n-x) * l[x] - l[n-1]
    if(s<=0):
        print(0)
    else:
        print(s)
```

output

```
    4
    3
    6 1 3
    10
    4
    3 1 10 4
    4
    3
    7 9 1
    20
    2
    1 5
    0
PS E:\Panku\Python> 
```